

REMARKS

Claims 1-35, all the claims pending in the application, stand rejected. Claims 1, 7, 8, 10, 11, 14-22 and 25-32 are amended.

Claim Objections

The Examiner objects to claims 19 and 20 because he considers them to be “duplicate claims.” This objection is traversed as claim 19 is directed to a game program distribution device, while claim 20 is directed to a game program distribution method. The Examiner may consider these claims to be duplicate because they are not in conventional three-part form including a preamble, transition and body. Accordingly, Applicant has amended these to conform to a standard U.S. format.

Claim Rejections - 35 U.S.C. § 101

Claims 30-32 are rejected under 35 U.S.C. § 101 because, in the Examiner’s opinion, the claimed invention is directed to a non-statutory subject matter. The Examiner particularly points to the subject matter of the claim as being a “computer program” and concludes that such subject matter is not patentable under U.S. law. The Examiner also asserts that the claims would not be patentable even if amended to encompass “a computer readable storage medium.” Applicants also note that the Examiner has made certain comments in connection with this rejection with regard to a “data structure”.

Applicants respectfully submit that these claims are directed to a recording medium having a computer program for controlling a computer to perform certain steps during game play, and not a data structure. Applicants submit that under the *In re Bouregard* case, the present claims to a computer readable storage medium, which contain a computer program having specified steps, should be patentable.

Claim Rejections - 35 U.S.C. § 102

Claims 1-23, 25-29 and 33-35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Suzuki et al (5,592,609). This rejection is traversed.

In framing the rejection, the Examiner observes that Suzuki discloses a game machine that includes an ability to edit game music, including a “music editor” that permits music attributes to be changed. The Examiner asserts that it may be changed in real time, while music

is being playing back, with reference to Figs. 14-15A and col. 16, lines 20-67. The Examiner asserts that on the basis of the music editor capability, a player can adjust the beginning and/or ending portion of the game. The Examiner also asserts that timing data and connection data are adjusted automatically to make a smooth transition between different sounds.

The Examiner appears to have given a broader interpretation of the teachings in the reference than is appropriate. As summarized in the Abstract, Suzuki et al teaches a video graphics/video game fabricating system which controls editing operations for a game that is loaded into a pluggable RAM cartridge. The off-the-shelf model video game represents a "starting point" from which a user can create an original video game, by modifying any of the game visual or audio effects. In particular, original background music (BGM) may be edited by a "music editor", as illustrated in Fig. 14. Similarly, the video display may be modified by an animation editor, as illustrated in Fig. 16. The system, as illustrated in Figs. 2A and 2B, includes a main CPU and game CPU that can cooperate in the game execution and editorial process. In the editing process, an editing screen generated by the main CPU is superimposed on the game screen generated by the program executing CPU, and may have the arrangement as illustrated in Fig. 7, which depicts an exemplary character editing screen having the variety of icons for editing animation (76) or sounds (68). As explain at col. 16, lines 20-67, the music editor may be engaged by clicking on a music symbol icon.

Notably, with regard to the BGM, the display screen as shown in Fig. 14 provides a variety of electronic switches that permit playback of selected portions of the music, selective layering and variations in volume, tempo, echo and key in real time. However, it is particularly significant that this editing process is conducted apart from the automated play of a game. In fact, all of the editing processes are undertaken off line from an actual automated game operation or play. This is particularly noted at col. 15, lines 20-44, where the animation editor is described and its function in setting a tempo for an animation sequence (not sound) is controlled and, only thereafter, is "**game play**" renewed. Further, there is no consideration of the merger of multiple music pieces or the transitioning between such pieces.

The present invention concerns a game machine and method of its operation where at least a first original music portion and a second original music portion are used in a music-oriented game. As explained at page 2, line 5, when game stage is completed with a selected

first piece of game music and another piece of game music is selected for the next game stage. A problem arises during the interval between the game stages because of a discontinuity and the music between reproductions of the first and second game music pieces. This discontinuity occurs because of the use of independent popular music where the tempo or volume at the end of the first piece and the beginning of a second piece do not match. Thus, as expressed at page 3, first paragraph, in order to keep a player interested in the game and to maintain the level of excitement during music transitions, an appropriate mechanism for achieving the transition, by using a bridge or connection music piece and by controlling at least one of the timing, volume and tempo of the first and second pieces, a satisfactory transition can be achieved. Several embodiments of the invention are described, which are further defined in the claims, to achieve an appropriate transition.

Of significance, all of this transitioning will take place during game play. The operation of the game machine in this manner does not take place during an editing operation.

The foregoing is an important distinction from Suzuki et al. Each of the claims, as now amended, is directed to either structure or steps that are operational during automated game play. The claims clearly distinguish over the operation and structure of Suzuki, where the editing process is conducted separate and apart from automated game play. Further, there is no combination of structures or steps in the Suzuki et al reference where first and second original music pieces exist, having post-ambles, preambles, and using connection music.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

A handwritten signature in black ink, appearing to read 'Alan J. Kasper', written over a horizontal line.

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Date: December 20, 2002

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A game machine, comprising:
first original music output means for outputting during automated game play at least a main part of first original music containing the main part and a post-amble subsequent thereto;
second original music output means for outputting during automated game play at least a main part of second original music containing a preamble and the main part subsequent thereto;
connection music output means for outputting during automated game play predetermined connection music; and
timing control means for controlling during automated game play the second original music output means and the connection music output means such that main part end timing of the first original music coincides with start timing of the connection music, and that main part start timing of the second original music coincides with output end timing of the connection music.

7. (Amended) A game machine, comprising:
original music storage means for storing audio data concerning at least a main part of original music containing the main part and a post-amble subsequent thereto;
connection music storage means for storing audio data concerning predetermined connection music;
original music output means for outputting during automated game play the main part of the original music based on the audio data concerning the main part;
connection music output means for outputting during automated game play the connection music based on the audio data concerning the predetermined connection music during a period when at least the post-amble of the original music must be output after completion of outputting the main part.

8. (Amended) A game machine, comprising:

original music storage means for storing audio data concerning at least a main part of original music containing a preamble and a main part subsequent thereto;

connection music storage means for storing audio data concerning predetermined connection music;

original music output means for outputting during automated game play the main part of the original music based on the audio data concerning the main part;

connection music output means for outputting during automated game play the connection music based on the audio data concerning the predetermined connection music during a period when at least the preamble of the original music must be output before start of outputting the main part.

10. (Amended) A game machine, comprising
original music storage means for storing audio data concerning original music containing a main part and a post-amble subsequent thereto;

original music end timing storage means for storing main part end timing data indicative of main part end timing of the original music;

connection music storage means for storing audio data concerning predetermined connection music;

original music reproduction means for outputting during automated game play the original music based on the audio data concerning the original music;

main part end timing monitoring means for monitoring main part end timing based on the main part end timing data while outputting the original music during automated game play;

connection music output means for beginning outputting the connection music upon arrival of the main part end timing during automated game play; and

original music volume control means for reducing an output volume of the original music upon arrival of the main part end timing during automated game play.

11. (Amended) A game machine, comprising:
original music storage means for storing audio data concerning original music containing a preamble and a main part subsequent thereto;

main part start timing storage means for storing main part start timing data indicative of main part start timing of the original music;

connection music storage means for storing audio data concerning predetermined connection music;

original music reproduction start timing storage means for storing original music reproduction start timing data indicative of original music reproduction start timing during a period when the connection music is output;

connection music output means for outputting during automated game play the connection music based on the audio data concerning the connection music;

original music reproduction start timing monitoring means for monitoring during automated game play original music reproduction start timing based on the original music reproduction start timing data during a period when the connection music is output;

original music reproduction means for beginning reproduction of the original music while suppressing an output volume for the original music, upon arrival of original music reproduction start timing during automated game play;

main part start timing monitoring means for monitoring during automated game play main part start timing based on the main part start timing data after reproduction of the original music was started; and

original music volume control means for increasing an output volume for the original music upon arrival of the main part start timing during automated game play.

14. (Amended) A game music output method executable during automated game play, comprising:

an original music output step of outputting at least a main part of second original music containing a preamble and the main part subsequent thereto; and

a connection music output step of outputting predetermined connection music during a period when the preamble of the original music must be output.

15. (Amended) A game music output method executable during automated game play, comprising:

a first original music output step of outputting at least a main part of first original music containing the main part and a post-amble subsequent thereto;

a second original music output step of outputting at least a main part of second original music containing a preamble and the main part subsequent thereto; and

a connection music output step of outputting predetermined connection music during a period between main part end timing of the first original music and main part start timing of the second original music.

16. (Amended) An information storage medium storing a program for causing a computer to execute a program in order to control automated game play, said program comprising:

an original music output step of outputting at least a main part of first original music containing the main part and a post-amble subsequent thereto; and

a connection music output step of outputting predetermined connection music during a period when the post-amble of the original music must be output.

17. (Amended) An information storage medium storing a program for causing a computer to execute a program in order to control an automated game play, said program comprising:

an original music output step of outputting at least a main part of second original music containing a preamble and the main part subsequent thereto; and

a connection music output step of outputting predetermined connection music during a period when the preamble of the original music must be output.

18. (Amended) An information storage medium storing a program for causing a computer to execute a program in order to control automated game play, said program comprising:

a first original music output step of outputting at least a main part of first original music containing the main part and a post-amble subsequent thereto;

a second original music output step of outputting at least a main part of second original music containing a preamble and the main part subsequent thereto; and

a connection music output step of outputting predetermined connection music during a period between main part end timing of the first original music and main part start timing of the second original music.

19. (Amended) A game program distribution device for distributing a program, said program being operative for causing a computer to execute a plurality of steps, said steps comprising:

a first original music output step of outputting during automated game play at least a main part of first original music containing the main part and a post-amble subsequent thereto;

a second original music output step of outputting during automated game play at least a main part of second original music containing a preamble and the main part subsequent thereto;
and

a connection music output step of outputting during automated game play predetermined connection music during a period between main part end timing of the first original music and main part start timing of the second original music.

20. (Amended) A game program distribution method for distributing a program, said program being operative for having a computer to execute a plurality of steps, said steps comprising:

a first original music output step of outputting during automated game play at least a main part of first original music containing the main part and a post-amble subsequent thereto;

a second original music output step of outputting during automated game play at least a main part of second original music containing a preamble and the main part subsequent thereto;
and

a connection music output step of outputting during automated game play predetermined connection music during a period between main part end timing of the first original music and main part start timing of the second original music.

21. (Amended) A game machine having a controller operated by a player in accordance with game music, comprising:

original music output means for outputting, as a part of the game music, at least a main part of original music containing a preamble, the main part, and a post-amble in this order;

connection music output means for outputting during automated game play predetermined connection music;

original music determination means for determining during automated game play next original music to output;

timing control means for controlling during automated game play the original music output means and the connection music output means such that the connection music is output during a period between main part end timing of original music currently output and main part start timing of the next original music to output.

22. A game machine of which controller is operated by a player in accordance with game music, comprising:

input means for setting a play condition including a number of players and difficulty;

play condition storage means for storing the play condition set; and

game advancing means for advancing a game during automated game play according to the play condition stored during successive reproduction of the game music based on a plurality of pieces of original music,

wherein,

the game advancing means includes

original music output means for outputting during automated game play, as a part of the game music, at least a main part of original music containing a preamble, the main part, and a post-amble in this order;

connection music output means for outputting during automated game play predetermined connection music;

original music determination means for determining during automated game play next original music to output; and

timing control means for controlling during automated game play the original music output means and the connection music output means such that the connection music is output during a period between main part end timing of the original music currently output and main part start timing of the next original music to output.

25. (Amended) A game machine, comprising:

a first original music output unit which outputs during automated game play at least a main part of first original music containing the main part and a post-amble subsequent thereto;

a second original music output unit which outputs during automated game play at least a main part of second original music containing a preamble and the main part subsequent thereto;

a connection music output unit which outputs during automated game play predetermined connection music; and

a timing controller which controls during automated game play the second original music output unit and the connection music output unit such that main part end timing of the first original music coincides with start timing of the connection music, and that main part start timing of the second original music coincides with output end timing of the connection music.

26. (Amended) A game machine, comprising:

original music storage for storing audio data concerning at least a main part of original music containing the main part and a post-amble subsequent thereto;

connection music storage for storing audio data concerning predetermined connection music;

an original music output unit which outputs during automated game play the main part of the original music based on the audio data concerning the main part; and

a connection music output unit which outputs during automated game play the connection music based on the audio data concerning the predetermined connection music during a period when at least the post-amble of the original music must be output after completion of outputting the main part.

27. (Amended) A game machine, comprising:

original music storage for storing audio data concerning at least a main part of original music containing a preamble and a main part subsequent thereto;

connection music storage for storing audio data concerning predetermined connection music;

an original music output unit which outputs during automated game play the main part of the original music based on the audio data concerning the main part; and

a connection music output unit which outputs automated game play the connection music based on the audio data concerning the predetermined connection music during a period when at least the preamble of the original music must be output before start of outputting the main part.

28. (Amended) A game machine, comprising

- original music storage for storing audio data concerning original music containing a main part and a post-amble subsequent thereto;
- original music end timing storage for storing main part end timing data indicative of main part end timing of the original music;
- connection music storage for storing audio data concerning predetermined connection music;
- an original music reproduction unit which outputs during automated game play the original music based on the audio data concerning the original music;
- a main part end timing monitor for monitoring during automated game play main part end timing based on the main part end timing data while outputting the original music;
- a connection music output unit which begins outputting, during automated game play, the connection music upon arrival of the main part end timing; and
- an original music volume controller for reducing an output volume of the original music upon arrival of the main part end timing during automated game play.

29. (Amended) A game machine, comprising:

- original music storage for storing audio data concerning original music containing a preamble and a main part subsequent thereto;
- main part start timing storage for storing main part start timing data indicative of main part start timing of the original music;
- connection music storage for storing audio data concerning predetermined connection music;
- original music reproduction start timing storage for storing original music reproduction start timing data indicative of original music reproduction start timing during a period when the connection music is output;

a connection music output unit which outputs during automated game play the connection music based on the audio data concerning the connection music;

an original music reproduction start timing monitor for monitoring during automated game play original music reproduction start timing based on the original music reproduction start timing data during a period when the connection music is output;

an original music reproduction unit which begins reproduction of the original music during automated game play while suppressing an output volume for the original music, upon arrival of original music reproduction start timing;

a main part start timing monitor for monitoring during automated game play main part start timing based on the main part start timing data after reproduction of the original music was started; and

an original music volume controller for increasing an output volume for the original music upon arrival of the main part start timing during automated game play.

30. (Amended) A computer readable storage medium containing a computer program for causing a computer to execute a plurality of steps, said steps comprising:

outputting during automated game play at least a main part of first original music containing the main part and a post-amble subsequent thereto; and

outputting during automated game play predetermined connection music during a period when the post-amble of the original music must be output.

31. (Amended) A computer readable storage medium containing a computer program for causing a computer to execute a plurality of steps, said steps comprising:

outputting during automated game play at least a main part of second original music containing a preamble and the main part subsequent thereto; and

outputting during automated game play predetermined connection music during a period when the preamble of the original music must be output.

32. (Amended) A computer readable storage medium containing a computer program for causing a computer to execute a plurality of steps, said steps comprising:

outputting during automated game play at least a main part of first original music containing the main part and a post-amble subsequent thereto;

outputting during automated game play at least a main part of second original music containing a preamble and the main part subsequent thereto; and

outputting during automated game play predetermined connection music during a period between main part end timing of the first original music and main part start timing of the second original music.